

APPLICANT(S): LEBONHEUR, Vassoudevane
SERIAL NO.: 10/706,963
FILED: November 14, 2003
Page 7

REMARKS

The present Response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Applicants assert that the present invention is new, non-obvious and useful. Favorable reconsideration and allowance of the application is respectfully requested.

Status of Claims

Claims 1-29 are pending in the application. Claims 1-29 have been rejected. Claims 1, 7, 14, 19 and 27 have been amended.

New claims 30-32 have been added in order to further define what the Applicants consider to be the invention.

Applicants respectfully assert that the amendments to the claims add no new matter.

Amendments to the Specification

Applicants have amended the specification to correct typographic errors. The amendments are editorial in nature and no new matter has been added.

CLAIM REJECTIONS

35 U.S.C. § 112 Rejections

In the Office Action, the Examiner rejected claim 7 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 7 has been amended to overcome the antecedent basis deficiencies noted by the Examiner. It is respectfully asserted that the foregoing amendment merely addresses matters of form and does not change the literal scope of the claim.

Applicants thus request that the Examiner withdraw the rejection of claim 7 under 35 U.S.C. § 112, second paragraph.

APPLICANT(S): LEBONHEUR, Vassoudevane
SERIAL NO.: 10/706,963
FILED: November 14, 2003
Page 8

35 U.S.C. § 102 Rejection Based on Tsunoi

In the Office Action, the Examiner rejected claims 14, 16, 17 and 18 under 35 U.S.C. § 102(a, e or b), as being anticipated by U.S. Patent No 6,482,676 to Tsunoi et al. ("Tsunoi"). Applicants respectfully traverse this rejections of claims 14, 16, 17 and 18 under 35 U.S.C. § 102(a, e or b), as being anticipated by Tsunoi in view of the remarks that follow

Applicants' independent claim 14, as amended, requires that, inter alia, "each of the die electrical connections has a melting point which is above 400 degrees Celsius". Tsunoi does not disclose electrical connections which have a melting point which is above 400 degrees Celsius as is required in Applicants' independent claim 14, as amended.

Applicants' independent claim 14, as amended, requires that, inter alia, "the die electrical connections narrow from the first end connection area to the second end connection area in a linear fashion". Tsunoi does not disclose electrical connections that narrow from the first end connection area to the second end connection area in a linear fashion as is required in Applicants' independent claim 14, as amended. Having the electrical connections narrow in a linear fashion aids manufacture of the overall package, as the shape of the electrical connections may minimize the amount of entrapment of filler material between the die electrical connections and the substrate electrical connections.

In order for a reference to anticipate a claim under 35 U.S.C. 102(a, e or b), the reference must teach every element of the claim. Applicants assert that Tsunoi does not teach every element of Applicants' independent claim 14 as amended. Applicants therefore assert that independent claim 14 as amended is allowable over Tsunoi.

As discussed, Applicants' independent claim 14 as amended is allowable. Each of dependent claims 16, 17 and 18 depend directly or indirectly from independent claim 14. Dependent claims 16, 17 and 18 thereby include all of the elements of the claim from which they depend. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 16, 17 and 18 under 35 U.S.C. § 102(a, e or b), as being anticipated by Tsunoi.

APPLICANT(S): LEBONHEUR, Vassoudevane
SERIAL NO.: 10/706,963
FILED: November 14, 2003
Page 9

35 U.S.C. § 102 Rejection Based on Tsukahara

In the Office Action, the Examiner rejected claims 14, 16, 17 and 18 under 35 U.S.C. § 102(a, e or b), as being anticipated by U.S. Patent No. 6,051,093 to Tsukahara ("Tsukahara"). Applicants respectfully traverse this rejections of claims 14, 16, 17 and 18 under 35 U.S.C. § 102(a, e or b), as being anticipated by Tsukahara in view of the remarks that follow.

Applicants' independent claim 14, as amended, requires that, *inter alia*, "the die electrical connections narrows from the first end connection area to the second end connection area in a linear fashion" Tsukahara does not disclose electrical connections that narrow from the first end connection area to the second end connection area in a linear fashion as is required in Applicants' independent claim 14, as amended. Having the electrical connections narrow in a linear fashion aids manufacture of the overall package, as the shape of the electrical connections may minimize the amount of entrapment of filler material between the die electrical connections and the substrate electrical connections.

In order for a reference to anticipate a claim under 35 U.S.C. 102(a, e or b), the reference must teach every element of the claim. Applicants assert that Tsukahara does not teach every element of Applicants' independent claim 14 as amended. Applicants therefore assert that independent claim 14 as amended is allowable over Tsukahara.

As discussed, Applicants' independent claim 14 as amended is allowable. Each of dependent claims 16, 17 and 18 depend directly or indirectly from independent claim 14. Dependent claims 16, 17 and 18 thereby include all of the elements of the claim from which they depend. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 16, 17 and 18 under 35 U.S.C. § 102(a, e or b), as being anticipated by Tsukahara.

35 U.S.C. § 103(a) Rejection of claim 15 Based on Tsunoi or Tsukahara taken with Dias

In the Office Action, the Examiner rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi or Tsukahara taken with U.S. Patent No. 6,815,831 to Dias ("Dias"). Applicants respectfully traverse the rejections of claim 15 under 35 U.S.C. §

APPLICANT(S): LEBONHEUR, Vassoudevane
SERIAL NO.: 10/706,963
FILED: November 14, 2003
Page 10

103(a) as being unpatentable over Tsunoi or Tsukahara taken with Dias in view of the remarks that follow.

Claim 15 is dependent from amended independent claim 14, and includes all the features of amended independent claim 14 as well as additional distinguishing features. As discussed above, amended independent claim 14 is allowable over Tsunoi or Tsukahara. Dias does not cure the deficiencies of Tsunoi or Tsukahara. Dias does not disclose electrical connections that narrow from the first end connection area to the second end connection area in a linear fashion as is required in Applicants' independent claim 14, as amended. Therefore, it is respectfully submitted that dependent claim 15 is likewise allowable.

In view of the above, applicants respectfully request that the rejection of claim 15 under 35 USC §103(a) in view of Tsunoi or Tsukahara taken with Dias be withdrawn.

**35 U.S.C. § 103(a) Rejection of claims 1, 2, 4-9, 11-13 and 19-26 Based on
Tsunoi taken with Tsukahara and Dias**

In the Office Action, the Examiner rejected claims 1, 2, 4-9, 11-13 and 19-26 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi taken with Tsukahara and Dias. Applicants respectfully traverse the rejections of claims 1, 2, 4-9, 11-13 and 19-26 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi taken with Tsukahara and Dias in view of the remarks that follow.

According to M.P.E.P. §2142, In order to establish a *prima facie* case of obviousness, the prior art references must teach or suggest all the claim limitations.

Without conceding the appropriateness of the combination, Applicants respectfully submit that the combination of Tsunoi taken with Tsukahara and Dias do not meet the requirements of an obviousness rejection, in that the combination at least fails to teach or suggest all the elements of the claimed invention.

Applicants' independent claim 1, as amended, requires that, *inter alia*, "each of the first set of electrical connections has a melting point which is above 400 degrees Celsius". Tsunoi does not disclose electrical connections having a melting point which is above 400 degrees Celsius as is required in Applicants' independent claim 1, as amended. Furthermore, Applicants' independent claim 1, as amended, requires that, *inter alia*, "at least a distal portion

APPLICANT(S): LEBONHEUR, Vassoudevane
SERIAL NO.: 10/706,963
FILED: November 14, 2003
Page 11

of each of the first set of electrical connection narrows in a linear fashion towards the distal tip". Tsukahara does not disclose electrical connections that narrow in a linear fashion towards the distal tip as is required in Applicants' independent claim 1, as amended. Dias does not cure the deficiencies of Tsunoi or Tsukaha. Dias does not disclose electrical connections that narrow in a linear fashion towards the distal tip as is required in Applicants' independent claim 1, as amended. Therefore, Tsunoi and/or Tsukahara and/or Dias, alone or in combination, do not render independent claim 1 obvious.

Claims 2, 4-9 and 11-13 are dependent from amended independent claim 1, and include all the features of amended independent claim 1 as well as additional distinguishing features. Therefore, it is respectfully submitted that the novelty and patentability of claims 2, 4-9 and 11-13 follow directly from the novelty and patentability of amended independent claim 1.

Applicants' independent claim 19, as amended, requires that, inter alia, "each of the die electrical connections has a melting point which is above 400 degrees Celsius" Tsunoi does not disclose electrical connections having a melting point which is above 400 degrees Celsius as is required in Applicants' independent claim 19, as amended. Furthermore Applicants' independent claim 19, as amended, requires that, inter alia, "the die electrical connections narrow from the base to the distal tip in a linear fashion" Tsukahara does not disclose electrical connections that narrow in a linear fashion towards the base as is required in Applicants' independent claim 19, as amended. Dias does not cure the deficiencies of Tsunoi or Tsukaha. Dias does not disclose die electrical connections that narrow from the base to the distal tip in a linear fashion as is required in Applicants' independent claim 19, as amended. Therefore, Tsunoi and/or Tsukahara and/or Dias, alone or in combination, do not render independent claim 19 obvious.

Claims 20-26 are dependent from amended independent claim 19, and include all the features of amended independent claim 19 as well as additional distinguishing features. Therefore, it is respectfully submitted that the novelty and patentability of claims 20-26 follow directly from the novelty and patentability of amended independent claim 19.

In view of the above, applicants respectfully request that the rejection of claims 1, 2, 4-9, 11-13 and 19-26 under 35 USC §103(a) in view of Tsunoi taken with Tsukahara and Dias be withdrawn.

APPLICANT(S): LEBONHEUR, Vassoudevane
SERIAL NO.: 10/706,963
FILED: November 14, 2003
Page 12

35 U.S.C. § 103(a) Rejection of claim 3 Based on Tsunoi taken with Tsukahara and Dias in view of Hsieh

In the Office Action, the Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi taken with Tsukahara and Dias in view of U.S. Patent No. 6,790,758 to Hsieh et al. ("Hsieh"). Applicants respectfully traverse the rejections of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi taken with Tsukahara and Dias in view of Hsieh in view of the remarks that follow.

Claim 3 is dependent from amended independent claim 1, and includes all the features of amended independent claim 1 as well as additional distinguishing features. As discussed above, amended independent claim 1 is allowable over Tsunoi, Tsukahara and Dias. Hsieh does not cure the deficiencies of Tsunoi, Tsukahara or Dias. Hsieh does not disclose electrical connections that narrow in a linear fashion towards the distal tip as is required in Applicants' independent claim 1, as amended. Therefore, it is respectfully submitted that dependent claim 3 is likewise allowable.

In view of the above, Applicants respectfully request that the rejection of claim 3 under 35 USC §103(a) in view of Tsunoi taken with Tsukahara and Dias in view of Hsieh be withdrawn.

35 U.S.C. § 103(a) Rejection of claim 10 Based on Tsunoi taken with Tsukahara and Dias in view of Shiota or Liu

In the Office Action, the Examiner rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi taken with Tsukahara and Dias in view of U.S. Patent No. 6,111,628 to Shiota et al. ("Shiota") or U.S. Application Publication No. 2002/0109227 to Liu et al. ("Liu"). Applicants respectfully traverse the rejections of claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi taken with Tsukahara and Dias in view of Shiota or Liu in view of the remarks that follow.

Claim 10 is dependent from amended independent claim 1, and includes all the features of amended independent claim 1 as well as additional distinguishing features. As discussed above, amended independent claim 1 is allowable over Tsunoi, Tsukahara and Dias. Shiota or Liu does not cure the deficiencies of Tsunoi, Tsukahara or Dias. Shiota and

APPLICANT(S): LEBONHEUR, Vassoudevane
SERIAL NO.: 10/706,963
FILED: November 14, 2003
Page 13

Liu do not disclose electrical connections that narrow in a linear fashion towards the distal tip as is required in Applicants' independent claim 1, as amended. Therefore, it is respectfully submitted that dependent claim 10 is likewise allowable.

In view of the above, applicants respectfully request that the rejection of claim 10 under 35 USC §103(a) in view of Tsunoi taken with Tsukahara and Dias in view of Shiota or Liu be withdrawn.

35 U.S.C. § 103(a) Rejection of claims 27-29 Based on Tsunoi taken with Tsukahara in view of Dias and Hua

In the Office Action, the Examiner rejected claims 27-29 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi taken with Tsukahara in view of Dias and Hua. Applicants respectfully traverse the rejections of claims 27-29 under 35 U.S.C. § 103(a) as being unpatentable over Tsunoi taken with Tsukahara in view of Dias and Hua in view of the remarks that follow.

Applicants' independent claim 27, as amended, requires that, inter alia, "each of the die electrical connections has a melting point which is above 400 degrees Celsius". Tsunoi does not disclose electrical connections having a melting point which is above 400 degrees Celsius as is required in Applicants' independent claim 27, as amended. Furthermore Applicants' independent claim 27, as amended, requires that, inter alia, "the die electrical connections narrow from the base to the distal tip in a linear fashion". Tsukahara does not disclose electrical connections that narrow from the base to the distal tip in a linear fashion as is required in Applicants' independent claim 27, as amended. Dias or Hua does not cure the deficiencies of Tsunoi, Tsukahara. Dias and Hua do not disclose electrical connections that narrow from the base to the distal tip in a linear fashion as is required in Applicants' independent claim 27, as amended. Therefore, Tsunoi and/or Tsukahara and/or Dias and/or Hua, alone or in combination, do not render independent claim 27 obvious.

Claims 28-29 are dependent from amended independent claim 27, and include all the features of amended independent claim 27 as well as additional distinguishing features. Therefore, it is respectfully submitted that the novelty and patentability of claims 28-29 follow directly from the novelty and patentability of amended independent claim 27.

APPLICANT(S): LEBONHEUR, Vassoudevane
SERIAL NO.: 10/706,963
FILED: November 14, 2003
Page 14

In view of the above, applicants respectfully request that the rejection of claims 27-29 under 35 USC §103(a) in view of Tsunoi taken with Tsukahara in view of Dias and Hua be withdrawn.

New Claims

Applicants have added claims 30-32 to clarify what Applicants regard as the invention. Applicants' independent claim 30, requires that, *inter alia*, "the die electrical connections narrow in a linear fashion towards the end furthest from the die and have a melting point which is above 400 degrees Celsius." None of the prior art of record alone or in combination teaches this limitation. Furthermore each of Applicants' dependent claims 31-32 depends from independent claim 30, and therefore includes all the limitations of independent claim 30. Applicants assert that new claims 30-32 are allowable.

Conclusion

In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Response and Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.